

Figure 1 displays 12 histograms, labeled (a) through (l), showing the distribution of the number of non-zero elements in the vector x_k for $k = 0, 1, \dots, 11$. The x-axis represents the 'Number of non-zero elements' (ranging from 0 to 10), and the y-axis represents the 'Frequency' (ranging from 0 to 10). The distributions are roughly bell-shaped and centered around 5-6 non-zero elements.

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